

**BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM SUMMARY**

Meeting Date:
ADMINISTRATOR

8/16/06

Division: COUNTY

Bulk Item: Yes X No ____

Department: TECHNICAL SERVICES

Staff Contact Person: Mickey Baker

AGENDA ITEM WORDING: Approval of and Authorization for the County to issue a Request for Proposal for Teleconferencing Equipment to provide for teleconferencing attendance by County Commissioners and keeping a record of those meetings in accordance with the Sunshine Law.

ITEM BACKGROUND:

HR 1335 was passed by the Florida Legislature, which authorizes the use of teleconferencing equipment by the Monroe County Board of County Commissioners for the purposes of establishing a quorum of board members for a special meeting. HR 1335 also stipulates that a special meeting of the board must comply with the requirements of the Sunshine Law. The Board of County Commissioners has asked Staff to prepare recommendations regarding Teleconferencing technology.

PREVIOUS RELEVANT BOCC ACTION:

Discussion of Teleconferencing systems – assignment of Staff research.

CONTRACT/AGREEMENT CHANGES:

RFP Only

STAFF RECOMMENDATIONS:

Approval. See attached review of teleconferencing technology.

TOTAL COST: None

BUDGETED: Yes ____ No X

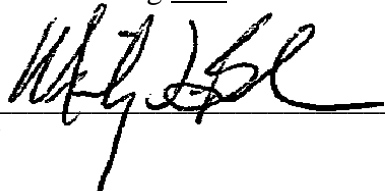
COST TO COUNTY None

SOURCE OF FUNDS: N/A

REVENUE PRODUCING: Yes ____ No X **AMOUNT PER MONTH** N/A **Year** N/A

APPROVED BY: County Atty. ____ OMB/Purchasing ____ Risk Management ____

DIVISION DIRECTOR APPROVAL:



DOCUMENTATION: Included X

Not Required ____

DISPOSITION: _____

AGENDA ITEM # _____

CHAPTER 2006-350

House Bill No. 1335

An act relating to Monroe County; providing definitions; authorizing teleconferencing attendance by county commissioners to qualify for a quorum at certain meetings; requiring compliance with certain public meetings laws; providing for future repeal; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. (1) As used in this section, the term:

(a) "Board" means the Board of County Commissioners of Monroe County.

(b) "Special meeting" means a public meeting of the board at which official action is taken, but does not include regular monthly meetings of the board.

(c) "Teleconferencing equipment" means the electronic transmission of audio, full-motion video, freeze-frame video, compressed video, and digital video by any method available that allows a person in one location to meet with another person in a different location.

(2) Notwithstanding section 120.54(5)(b)2., Florida Statutes, one or more board members participating through the use of teleconferencing equipment shall be deemed in attendance for purposes of establishing a quorum of board members for a special meeting.

(3) Special meetings authorized through this section must comply with the provisions of sections 286.0105, 286.011, and 286.012, Florida Statutes.

(4) This section is repealed June 30, 2007.

Section 2. This act shall take effect July 1, 2006.

Approved by the Governor June 23, 2006.

Filed in Office Secretary of State June 23, 2006.

Background

Monroe County Board of County Commissioners has asked the County Administrator to research solutions that would provide infrastructure to accommodate the teleconferencing attendance by Board members from remote locations. Since this request, the Florida Legislature has passed HR 1335, which authorizes remote attendance of Commissioners to constitute a quorum for Special Meetings. This document assesses the technical requirements of HR 1335 and discusses currently available solutions so that the Board can make an informed allocation of funds to an appropriate solution.

Requirements

- HR 1335 is very broad in that it allows “teleconferencing equipment” of almost every description. In the design of a teleconferencing solution, the Bill provides practically no constraints.
- As expected, compliance with the Sunshine Law is required. From this, we infer the technical requirements that teleconference be legible, audible, and that it must be recorded.
- It is expected that the Board wishes teleconferences broadcast over Monroe County TV and that copies recordings be made available to the public.

Assumptions and Preferences

- County Commissioners would appear at one or more of three facilities –
 - Key Largo Library Community Meeting Room,
 - Marathon Emergency Operations Center
 - Harvey Government Center, Key West
- Any number of Commissioners might appear at each location.
- Set-up should be flexible and easy.
- Teleconferencing should NOT use an outside service. Meetings might be necessary when outside Internet service is not available.
- Economic bandwidth usage is important to avoid additional recurring fees from telecommunications providers,
- One Technical Services person should be available to record and assist in the teleconference.
- Standards-based products are preferred for future replacement and expandability.
- Vendors with proven products and solutions are preferred.

Potential Solutions

Technical Services has determined that modern teleconferencing solutions fall into three different categories. These categories are:

1. *Large Meeting Room - Fixed Facilities*

These facilities combine multiple cameras and multiple microphones to turn a room into a virtual studio. Typically, this equipment is permanently installed and can be set up to operate cameras and audio from remote locations. Multiple, permanently installed monitors are provided so that all participants can see one another.

2. *Smaller Meeting Room – Flexible Facilities*

These facilities combine one or two cameras in each location with fewer microphones and limited ability for remote video and audio control when using more than two locations. Video monitors are often provided with microphones and cameras as a packaged unit.

3. *Personal Meeting Facility*

This consists of a small camera (like a Web-Cam) with an integrated microphone attached to a personal computer. This is very portable – users can appear in a teleconference from any location with a computer and high speed Internet access.

With standards-based systems, any of these facilities can communicate with one another. For example, if a Commissioner were in a remote location, she or he could appear in a teleconference using a Personal Meeting Facility with others who are in a large meeting room.

Explanation of Technical Issues

Network Bandwidth

The capacity of a network to transport traffic is called “bandwidth” and is analogous to water pipe diameter – larger pipes transport more water.

Although modern teleconferencing equipment and software is quite efficient at using as little bandwidth as possible, high quality video requires a steady stream of data. Interruption of bandwidth on a network shared with data causes visible degradation of the picture.

The County has sufficient bandwidth to occasionally transport video between Key West, Marathon and Plantation Key, but marginal bandwidth to the Key Largo Library. Additionally, there is no way to ensure that a data transfer event might not degrade the teleconference quality during a teleconference. The method to maintain enough bandwidth to make sure this doesn’t happen is called QOS, or Quality Of Service management, and is available as an option to network communication equipment.

Audio Control

There are two important facets of audio control while teleconferencing. The first is echo control. Someone speaks, a microphone picks up their voice, an electrical signal is generated, the signal is turned into digital data and sent along the wire to a remote user, who is listening on a loudspeaker. The remote user also has a microphone. That microphone picks up the sound from the loudspeaker and happily sends it back to the original speaker’s site, where he hears an echo.

All of these systems have echo cancellation built into the systems. In a large room with multiple microphones and a number of people to be heard, this echo cancellation becomes quite complex. This adds considerably to the complexity and expense of implementing teleconferencing in large rooms.

The second audio control issue is microphone level. When there are multiple people speaking in several locations, central control is needed for audio level. A provision for centralized audio control must be made, particularly when there are more than two locations and more than one microphone in each location.

Video Generation for Broadcast

Perhaps uniquely as a government entity, Monroe County TV's connection to Comcast for broadcast on Channel 76 occurs at any of the three Commission meeting places. Provisions for the teleconference feed to Comcast must occur at the same feed point.

Discussion of Options

Option 1 – Permanent, Large Room Teleconferencing

Monroe County BOCC has two permanent facilities (Harvey Government Center and Marathon EOC) which are large rooms. *If a permanent commitment to teleconferencing is desired, custom large-room solutions should be considered for these facilities and a more portable solution considered for Key Largo, until the Murray facility is completed.*

Pro: High quality video and audio with remote management.

Con: Expensive, longer procurement and lead times for implementation.

Option 2 – Webcams, Personal Teleconferencing

If it is anticipated that substitute legislation for HR 1335 might not be forthcoming, a permanent commitment to teleconferencing may be legally problematic, or costs are prohibitive, Technical Services is prepared to implement an interim solution of Web-Cams for each commissioner and podium. We have tested these Web-Cams with relatively inexpensive software, and have encountered several of the technical problems indicated above.

Pro: Relatively Inexpensive. Commissioners can conference from any high speed Internet connection. Quick implementation. (Days)

Con: Technical issues – echo cancellation, video quality based on bandwidth, little remote control.

Suggested Course of Action

Technical Services requests that we issue a broad Request for Proposals to search for a vendor that can address this issue on the County's behalf.